## **Generation A**

## **Emerald Studies in Workplace Neurodiversity**

### Series Editors: Amy E. Hurley-Hanson, PhD and Cristina M. Giannantonio, PhD

This important series is designed to make a significant contribution to the development of research on neurodiversity in the workplace. Despite increasing recognition of neurodiversity as a competitive advantage (Austin & Pisano, 2017), little is known about the work experiences and career outcomes of neurodiverse individuals. Neurodiversity is reported to include Autism Spectrum Disorder, Dyspraxia, Dyslexia, Attention Deficit Hyperactivity Disorder, Dyscalculia, Tourette Syndrome, and other neurological differences. This series will include books, monographs, edited volumes, and practitioner handbooks examining the key individual, organizational, and societal issues surrounding neurodiversity at work, the challenges involved in finding and maintaining employment for neurodiverse individuals, and the need to understand which best practices will lead to positive work, career, and life outcomes for neurodiverse individuals.

The series, *Emerald Studies in Workplace Neurodiversity*, will synthesize critical thinking around the strategic issues associated with hiring and integrating neurodiverse individuals into the workplace. Titles in the series will provide current research in this area. This series captures contemporary research and practice from a diverse range of international scholars, practitioners, and educators. The series will help to build connections between research and neurodiversity in the workplace.

The series will also explore the role of organizations, educational institutions, advocacy groups, and the public sector in preparing neurodiverse individuals for employment. It will also explore best practices being utilized in the employment process and how these may be adapted to address future challenges. This is a series that is relevant for both academics and practitioners, as it aims to further the research agenda on the topic and influence the ability of organizations to successfully hire neurodiverse individuals. While little is known about the work experiences and career outcomes of these individuals, the individual, organizational, and societal issues associated with neurodiversity in the workplace underscore the importance of this topic.

More information about the series is available at: https://books.emeraldinsight.com/page/series-detail/Emerald-Studies-in-Workplace-Neurodiversity/

#### **Available Titles in This Series**

Generation A: Research on Autism in the Workplace, edited by Amy E. Hurley-Hanson, PhD and Cristina M. Giannantonio, PhD

# Generation A: Perspectives on Special Populations and International Research on Autism in the Workplace

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### Dedication

The day will come when the man at the telephone will be able to see the distant person to whom he is speaking.

Alexander Graham Bell

This book is dedicated to our families who showed us what the future might hold.

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Jacqueline H. Stephenson, PhD, is a Lecturer in the Department of Management Studies, University of the West Indies. Dr Stephenson read for a doctoral degree in Human Resource Management at the University of Nottingham (UK), and her research interests include equality, diversity, inclusion, and discrimination within the organizational context. She is a Reviewer for several academic journals and teaches undergraduate and doctoral courses in Human Resource Management, Human Resource Development, and Organizational Behavior. She is the coauthor of Diversity, Equality, and Inclusion in Caribbean Organisations and Society: An Exploration of Work, Employment, Education, and the Law.

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The idea for this book began before the advent of the pandemic in 2020. We could not have imagined the hardships the pandemic would create for our authors, including shutting down research sites, limiting the ability to conduct inperson interviews, restricting travel, closing campuses, infecting the authors and their families, and losing loved ones to COVID-19. Unprecedented weather throughout the world left some of our authors with flooded homes and no running water or electricity for weeks, while others were evacuated from their homes. We are grateful for their perseverance and dedication to completing their chapters and their commitment to creating a more inclusive workplace for members of Generation A. We thank them for their patience with us and for putting our deadlines ahead of their own during these challenging times.

Finally, neither of us could have produced this book alone. We are fortunate to be friends who work together and colleagues who are friends.

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### **Preface**

Autism Speaks (2019) estimates that there are 3.5 million people with Autism Spectrum Disorder (ASD) in the United States. According to the Centers for Disease Control and Prevention, 2.2% of American adults have ASD and 18.5% of children are on the autism spectrum (CDC, 2020). Worldwide, the number of people affected by ASD is estimated to be in the tens of millions. Although it is difficult to get exact numbers, it is estimated that 1% of the world's population has autism (CDC, 2018; Grønborg, Schendel & Parner, 2013; Malcolm-Smith, Hoogenhout, Ing, De Vries, & Thomas, 2013).

The unemployment and underemployment rates for neurodiverse individuals, as compared to the general population, remain notably high (Baldwin, Costley, & Warren, 2014; Krieger, Kinebanian, Prodinger, & Heigl, 2012; Nord, Stancliffe, Nye-Legerman, & Hewitt, 2016; Richards, 2012; Roux et al., 2013; Scott, Falkmer, Girdler, & Falkmer, 2015; Shattuck et al., 2012). Unemployment statistics for adults with ASD reveal that 85% are unemployed and that 69% of them want to work (National Autistic Society, 2016). Research has shown that many individuals with ASD have never been members of the labor force (Cidav, Marcus, & Mandell, 2012). The statistics for young adults are particularly troubling, as it is estimated that half a million individuals with ASD will reach adulthood in the current decade and will be poised to enter the workplace in unprecedented numbers. These numbers suggest the need to examine the long-term employment, career, and life outcomes for this generational cohort. Hurley-Hanson, Giannantonio, and Griffiths (2020) introduced the term *Generation A* to refer to this generational cohort of young adults with ASD.

Labor market predictions suggest that there is a growing need for a skilled workforce in Science, Technology, Engineering, and Math (STEM) fields (U.S. Bureau of Labor Statistics, 2018). Neurodiverse individuals may be an ideal fit for this segment of the labor market as many possess the skill sets required of occupations in these fields (Crespi, 2016). The demand for talent in STEM fields is expected to dramatically increase as businesses and the economy return to prepandemic levels as vaccination rates increase and infection rates decline (Coy, 2021).

The high rates of unemployment highlight the costs to society of supporting unemployed individuals with ASD, the discrimination they face in the workplace, and the negative financial and social effects on family members. Sharpe and Baker (2007, p. 276) state that "Autism can be an expensive disorder." The annual costs of autism in the United States are estimated at \$137 billion (Buescher, Cidav, Knapp, & Mandell, 2014). Leigh & Du (2015) estimated the combined annual

direct medical costs, nonmedical costs, and productivity costs of autism at \$268 billion. They projected that these costs will reach \$461 billion by 2025. These numbers are not unique to the United States. Internationally, autism is regarded as the most expensive disability (Byford et al., 2016; Clasquin & Clasquin, 2018; Hall, Wright, & Mills, 2016). In the United Kingdom, the total annual cost for children with ASD was found to be £2.7 billion (\$4.3 billion US) while the costs for adults was £25 billion (\$40.5 billion US) (Knapp, Romeo, & Becham, 2009). The national cost of ASD in Australia is estimated to range from \$4.5 to \$7.2 billion AUD (Horlin, Falkmer, Parsons, Albrecht, & Falkmer, 2014). In Scotland, MacKay, Knapp, and Boyle (2017) estimated the annual cost of ASD to be almost £2.3 billion.

Few disabilities appear to be more taxing on parents than ASD (Seltzer et al., 2009). "It can cost a typical family \$60,000 per year and expenses are rising even further" (Guillot, 2013). Costs for the parents and families of individuals with autism include lost income, lost productivity, and missed career opportunities. In addition to lost salary, caregiving responsibilities influence a parent's ability to enter and remain in the workforce (Gould, 2004), whether they can work full time or part-time (Horlin et al., 2014), and the types of career opportunities that may need to be foregone. Thirty-nine percent of the parents of children with ASD reported that childcare problems had greatly affected their employment decisions, compared to nine percent of parents with neurotypical children. Parents of children with ASD score lower on a variety of measures of well-being than parents of children without disabilities, as well as parents of children with other types of disabilities (Abbeduto et al., 2004; Eisenhower, Baker, & Blacher, 2005). Adverse health outcomes for the parents of a child with ASD as compared to the parents of neurotypical children include high levels of stress (Hayes & Watson, 2013), depression (van Steijn et al., 2013), fatigue (Giallo, Wood, Jellett, & Porter, 2013), poor sleep (Meltzer, 2008), and self-rated poor health (Allik, Larsson, & Smedje, 2006). All of these issues may place emotional strain on family members and contribute to marriage difficulties such as abandonment, separation, or divorce. Parents of children with ASD may be more likely to divorce than parents of children without ASD due to high levels of stress and demands on time (Shapiro, Gottman, & Carrere, 2000; Shiono & Quinn, 1994). Some studies report divorce rates of 80 percent or more (Doherty, 2008; Hartley et al., 2006).

Other family members may also experience challenges. Siblings of family members with ASD are reported to have lower rates of social and emotional well-being (Wright, 2018). They may also have fewer social outings with peers and might find that their family is excluded from holiday events and gatherings. Grandparents of individuals with ASD have been found to experience stigma similar to that felt by parents and siblings (DePape & Lindsay, 2015; Hillman, Wentzel, & Anderson, 2017), as well as stress due to worry about their family (Margetts, Couteur, & Croom, 2006). Studies have found that 25% of grandparents helped with babysitting, respite care, financial resources, and transportation. Some grandparents also help by moving in with the family, postponing retirement, withdrawing retirement savings (Hillman, Marvin, & Anderson, 2016), or advocating for their grandchild (Hillman et al., 2017).

Finally, an emerging area of research is examining how those who identify as allies (both family and nonfamily members) are assisting individuals with ASD during the hiring process through advocacy strategies (Clark, 2019).

Little research has examined the effects of a diagnosis of ASD on individuals who traditionally have not been the focus of autism studies. For example, most studies on autism in the workplace have only examined a fairly small subset of occupational categories (e.g. STEM), with limited understanding of how ASD may influence the work experiences and career outcomes of individuals working in the medical, academic, and legal professions. More research is needed to understand how ASD affects members of various protected classes including age, gender, race, national origin, religion, sexual preference, and sexual identity.

While much autism research has focused on individuals with ASD in the United States, it is important to note that several important research studies are being conducted with international populations (Sarris, 2019). Much of the international research on ASD has focused on the effects of stigma on individuals and their families, and whether parents are willing to accept services that may help individuals with ASD to find work. Cultural differences surrounding the stigma of autism suggest that in some cultures, the stigma of autism is more pronounced than in others. While a diagnosis of autism may bring needed therapies and support, it may also result in stigmatization, being ostracized, and social rejection for the child and the family (Sarris, 2019). Baker (2013) found that many children with autism in South Korea had not been diagnosed and had not received any special services. In Korean culture, many parents of a child with autism worry that their other children will not be able to find spousal partners. A study in Great Britain found that parents were reluctant to have their child diagnosed, and although they knew the benefits of treatment, they were afraid of rejection and stigma (Russell & Norwich, 2012). A study in Israel found that caregivers of people with autism felt more stigmatized than caregivers of those with physical or intellectual disabilities (Werner & Shulman, 2013). Schools in Japan began offering special education for students with developmental disorders in 2007 and found that parents were very reluctant to allow their children to participate in those programs for fear of the stigma (Russell & Norwich, 2012). A study in Hong Kong found that the parents of children with ASD had very high levels of internalization of stigma (Mak & Kwok, 2010).

Another focus of international research has been workplace discrimination faced by individuals with ASD. The United Nations has noted the widespread discrimination in the workplace against people with autism and the limited vocational training and job opportunities available to them. Most discrimination lawsuits against organizations have focused on recruitment practices and lack of accommodations for individuals with ASD. A 2017 British case (Government Legal Service v Brookes [2017]) found that the employer was fined because an individual with Asperger's was required to take a multiple-choice test, placing an unjustified requirement on the applicant. This was unlawful indirect disability discrimination. Other legal issues that arise in the workplace have involved reasonable accommodations, workplace bullying, failure to adjust company policies, companies' lack of understanding of how the employee's disability might

affect their job, perceiving a negative effect on the employee's performance due to their disability with no actual data to support this, and termination of an employee based on beliefs regarding the disability. Employment laws protecting individuals with ASD and other disabilities vary widely from country to country. Violations of these laws have long-term effects on the work experiences and career outcomes experienced by individuals with ASD, as well as implications for organizational practices and Human Resource Management policies in those countries. Future research on ways to mitigate the discrimination and stigma experienced by individuals with ASD may enable corporations to successfully create organizations that allow for the successful employment of individuals with ASD.

It is within this context that chapters were selected to be included in this edited volume. Several chapters focus on understanding the perspectives of special populations within Generation A, while other chapters focus on international research on autism in the workplace. These chapters capture contemporary research and practice from a diverse range of international scholars, practitioners, and educators, with the goal of building connections between research and practice focused on issues of neurodiversity in the workplace. It is hoped that future research on neurodiversity in the workplace will discover best practices that will lead to positive work, career, and life outcomes for members of Generation A and neurodiverse individuals.

Amy E. Hurley-Hanson, PhD and Cristina M. Giannantonio, PhD

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### Introduction

This book is part of the *Emerald Studies in Workplace Neurodiversity* series. This series focuses on making significant contributions to the development of research on neurodiversity in the workplace and will capture contemporary research and practice from a diverse range of international scholars, practitioners, and educators. The series is intended to build connections between research and issues of neurodiversity in the workplace.

This book explores ways that researchers can help facilitate finding and maintaining employment for individuals with Autism Spectrum Disorder (ASD). The authors explore the role of organizations, advocacy groups, and the public sector in preparing neurodiverse individuals for employment. The chapters included in this volume specifically focus on the transition, work, and career experiences of Generation A. Hurley-Hanson et al. (2020) introduced the term Generation A to refer to the 500,000 young adults with ASD that will be poised to enter the workplace in the current decade. The chapters included in this volume are organized and presented along two themes: *Special Populations Affected by Generation A* and *International Research on Generation A*.

The first theme, *Special Populations Affected by Generation A*, explores the experiences of special populations within the generational cohort of Generation A. Chapters in this section of the book explore the growth of STEM occupations and how this growth may create opportunities for women members of Generation A. Other chapters in this section examine the career and life effects of being a parent of a young adult with ASD, the role of allies in supporting the efforts of young adults with ASD to find and maintain successful employment, and the unique career experiences of individuals with ASD in the legal profession.

The chapter entitled *Creating Career Opportunities for Women with Autism in STEM* (Chapter 1) by Amy Jane Griffiths, Angel Miles Nash, Zachary D. Maupin, Raquel Delgado, and Sneha Kohli Mathur explores the intersection between STEM occupations and the special population of women who are members of Generation A. The authors note that over the next 25 years, STEM (science, technology, engineering, and mathematics) occupations will increase at rates higher than those in any other professional field. The inevitable rise in career opportunities, and the multiplicative impact across technology in a wide range of fields, will continue to create gaps that can and should be filled by professionals with diverse skill sets. The authors argue that it is essential to increase equitable access to future available jobs for historically underserved populations, such as women with autism, as they possess skills and perspectives that offer different

approaches to job tasks in STEM fields. This chapter brings much-needed attention to the interventions that employers can and should enact to support the women of Generation A. The FACES framework (Facilitation, Awareness, Connection, Exposure, Support) is offered as a guidepost for organizations that endeavor to support women with autism in professional preparation and on-the-job development.

The chapter entitled Workplace Experiences of Parents of Children with ASD (Chapter 2) by Jeff Larson discusses the significant professional strain that having a child with ASD can cause parents. The author suggests that compared to parents of typically developing children or children with other types of special needs, parents of children with ASD report being underemployed, having more difficulty accomplishing important work tasks or taking on new work assignments, and being viewed less favorably by supervisors. Research on this special population also suggests that they may be more likely to perceive themselves as stigmatized by coworkers, negatively impacting their abilities to develop or maintain meaningful relationships with others at work. All of these factors lead to parents of children with ASD earning less annual income than other types of parents and being more likely to experience loss of workplace motivation or lower overall job satisfaction. The negative career experiences of parents of children with ASD may also impact employers. Employees experiencing lower motivation levels are less productive and more likely to quit their jobs, resulting in increased turnover expenses. Because the number of working parents of children with ASD will continue to grow as ASD rates increase, organizations would benefit from supporting parents of children with ASD through adopting flexible work-life balance policies, encouraging leaders to promote values of diversity and inclusiveness, and implementing workplace programs designed to support parents and educate coworkers.

The chapter entitled Career Progression: Strategies used by self-advocates with ASD and their allies (Chapter 3) by Christine L. Nittrouer, Evan E. Dean, and Karrie A. Shogren examines the efficacy of allyship strategies used to support job seekers with ASD to communicate with potential employers. The research presented in this chapter assesses self-advocates with ASD and supporters of people with ASD (e.g., family members, caregivers, employment specialists, vocational rehabilitation professionals) about the advocacy strategies they have implemented during the hiring process to enhance communication with employers. Study participants rated the effectiveness of the strategies that others may use and the strategies they have used when seeking employment for an open position. A variety of psychological variables (e.g., self-determination, self-advocacy, global self-esteem, mentorship, incivility) suspected to influence the use of these strategies in seeking employment were measured. Findings from this research inform effective support and advocacy strategies as well as ways that varying psychological variables predict the use of these strategies, allowing for the personalization of interventions and support for self-advocates and allies.

The chapter entitled Stellar Evolution: Career paths of autistic professionals in corporate law firms (Chapter 4) by Anna Hinder examines the career experiences of lawyers in professional services firms. Her study gives a unique insight

into the career experiences members of Generation A are likely to encounter as they enter the workforce in professional service firms. This chapter describes the features of professional service firms and their talent management systems to suggest that private practice legal work provides a career that is well suited to the preferences of many autistic professionals. In law firms, the focus has been on improving the career experiences of current neurodiverse employees who may or may not have a formal diagnosis in both entry level and senior roles. There are unique challenges for employees, their teams, and law firms that employ adults with ASD. These challenges are explored across the career stages of a legal professional as they develop expertise and make the transition from graduate to partner.

The second theme, *International Research on Generation A*, explores the experiences of Generation A from an international perspective. The countries represented are India, Great Britain, Ireland, and Trinidad and Tobago. The chapters explore various ways that individuals with ASD and members of Generation A are being included in organizations in these countries. The authors describe areas where the employment of Generation A is not currently being addressed and suggest the types of accommodations that will be needed to facilitate Generation A's entry into the workforce in their countries. The legal issues associated with hiring individuals with ASD, as well as efforts by nongovernmental organizations (NGOs) to facilitate their employment, are also discussed by these authors.

The chapter entitled *Enabling Neurodiversity in the Workplace via Inclusive Human Resource Practices* by Ashley Molloy, Ashley O'Donoghue, and Na Fu (Chapter 5) notes that the employment rate of individuals with ASD remains very low, that access to services and support for them is inadequate globally, and that research on understanding neurodiversity-based employment and its success factors is quite limited. This chapter aims to fill this important gap by exploring inclusive human resource practices being adopted by companies that are neurodiversity champions. The authors report the results of interviews that were conducted with six Irish organizations to identify their neurodiversity and autism practices. Their chapter also offers a theoretical and practical assessment of the needs and challenges faced by neurodiverse employees and outlines a set of human resource management practices that are required to create an inclusive work environment to attract and retain neurodiverse workers. In addition, they cover the opportunities and obstacles of Generation A in their countries and how organizations are working to become more inclusive.

The chapter entitled Autism, Generation A, and the Workplace: The Policy, Legal and Institutional Framework in Trinidad and Tobago (Chapter 6) by Natalie Persadie argues that neurodiverse conditions and developmental disorders are neither well known nor understood by the general population in Trinidad and Tobago. In particular, awareness of and sensitivity toward children with ASD are lacking. Given the current challenges faced by persons with ASD in securing and maintaining employment and the fact that this is a generally underexplored area of research, focusing on Generation A provides an opportunity to explore what provisions are in place for individuals with ASD to assist with future transitions

into the workplace in Trinidad and Tobago. This chapter focuses on the existing policy, legal, and institutional framework in Trinidad and Tobago to determine how ASD in the workplace is currently addressed and what accommodations are being made to facilitate this demographic. A review of ASD-related data and select, relevant policy, law, and institutions in Trinidad and Tobago revealed that very few preparations, if any, are being made to facilitate members of Generation A's entry into the workplace. The most relevant sector for addressing ASD needs falls to the NGO movement, although these organizations do not focus on employment preparation. Several recommendations for key stakeholders in this process are presented that may assist with these issues.

The chapter entitled Efficacy of Anti-Discrimination Legislation – The case of autism spectrum disorder by Jacqueline H. Stephenson (Chapter 7) examines attempts to eliminate and minimize employment discrimination against individuals with ASD in the United Kingdom. Stephenson argues that the passage of legislation has proved instrumental, not only in containing the perpetration of discrimination based on protected grounds but also in increasing awareness of the disadvantages which result from the disparate treatment meted out to persons as a result of their immutable characteristics. Disabilities are one such area where legislation exists to prohibit disparate treatment in employment, education, and the provision of goods and services. The chapter analyzes a sample of discrimination cases in the United Kingdom by claimants who have alleged discrimination based on their diagnosis of autism or a related disorder within the autism spectrum.

The chapter entitled Generation A: Life perspectives, potentials, challenges, and future of neurodiverse stars in India by Sumathi Annamalai and L R Niranjan (Chapter 8) focuses on the Indian experience in the neurodiversity landscape. The chapter explores the lifestyles of a select number of successful neurodiverse rock stars in India and their journeys from becoming aware of their profile to establishing a career and becoming role models to other people with ASD. The chapter covers the autism landscape in India and explores business organizations in India that have hired people with ASD, their policies connected to neurodiversity, and the organizations that provide training and support to individuals with ASD. The chapter covers the opportunities and the challenges faced by individuals with ASD in India as well as the role of different stakeholders in providing support and training to this population.

In summary, we believe that this book offers insights into the transition, work, and career experiences of the young adults with ASD who comprise Generation A. This book brings together international scholars, practitioners, and educators who are researching Autism in the Workplace with a particular emphasis on Generation A in their home countries, as well as special populations within Generation A. The chapters presented in this volume offer researchers, educators, and practitioners several avenues for smoothing the transition from educational settings into the workplace for Generation A, whose members are poised to enter the labor market, eager to work, and able to achieve positive work experiences and life outcomes. This book provides several new contributions to both the disabilities literature and research on special populations and the international

context. These two important areas are often overlooked in research on ASD in the workplace. This book has the potential to reduce the stigma associated with ASD, change image norms surrounding ASD, and facilitate integrating individuals with ASD into the workforce. Hopefully, this book will be a valuable resource for individuals with ASD, as well as their families and caregivers. It will also be an important resource for organizations interested in obtaining the benefits of hiring people with ASD and for advocacy groups supporting the transition and employment needs of individuals with ASD.

> Amy E. Hurley-Hanson, PhD and Cristina M. Giannantonio, PhD

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